

# MNWR

MORBIDITY AND MORTALITY WEEKLY REPORT

- 65 Surveillance for Creutzfeldt-Jakob
- Disease United States 669 Family Violence Education in Medical School-Based Residency Programs — Virginia, 1995
- 671 Chrobactrum anthropi Meningitis Associated with Cadaveric Pericardial Tissue Processed with a Contaminated Solution — Utah, 1994
- State-Specific Prevalence of Participation in Physical Activity Behavioral Risk Factor Surveillance System, 1994
   Notices to Readers

#### Surveillance for Creutzfeldt-Jakob Disease — United States

Creutzfeldt-Jakob disease (CJD) in humans and bovine spongiform encephalopathy (BSE) in cattle are subacute degenerative diseases of the brain classified as transmissible spongiform encephalopathies. BSE was first identified in 1986 in the United Kingdom (UK), where an epizootic involving >155,000 cattle appeared to have been greatly amplified by exposure of calves to contaminated rendered cattle carcasses in the form of meat and bone meal nutritional supplements (1). On March 20, 1996, an expert advisory committee to the government of the UK (1995 estimated population: 58.3 million) announced its conclusion that the agent responsible for BSE might have spread to humans, based on recognition of 10 persons with onset of a reportedly new variant form of CJD\* during February 1994-October 1995. The 10 persons ranged in age from 16 to 39 years (median age at illness onset: 28 years); of the eight persons who had died, five were aged <30 years (2). In comparison, in the United States, deaths associated with CJD among persons aged <30 years have been extremely rare (median age at death: 68 years) (3). As a result of the newly recognized variant of CJD described in the UK, CDC updated its previous review of national CJD mortality (3) and began conducting active CJD surveillance in five sites in the United States. These reviews did not detect evidence of the occurrence of the newly described variant form of CJD in the United States.

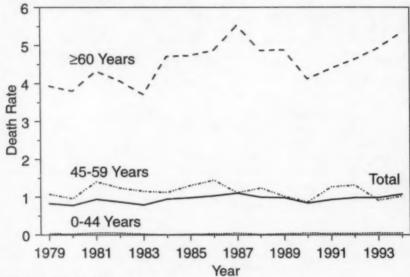
#### **National CJD Mortality Data**

Based on multiple cause-of-death data obtained from CDC's National Center for Health Statistics, the annual death rates for CJD (*International Classification of Diseases, Ninth Revision*, code 046.1) during 1979–1994 were stable at approximately 1 case per million population (Figure 1). Data for 1979–1993 are final; 1994 data are provisional.

<sup>\*</sup>This newly recognized variant of CJD has been characterized by a specific, uniform brain pathologic profile and the classical, pathognomonic spongiform changes of CJD found on histologic examination of brain tissue. This profile includes, in both the cerebellum and cerebrum, numerous kuru-type amyloid plaques surrounded by vacuoles and prion protein accumulation at high concentration, indicated by immunocytochemical analysis. Atypical clinical features include prominent behavior changes at the time of clinical presentation with subsequent onset of neurologic abnormalities, including ataxia within weeks or months, dementia and myoclonus late in the illness, a duration of illness of at least 6 months, and nondiagnostic electroencephalographic changes (2).

Creutzfeldt-Jakob Disease - Continued

FIGURE 1. Age-adjusted and age-specific death rates\* for Creutzfeldt-Jakob disease — United States, 1979-1994\*



\*Per million population.

<sup>†</sup>Data for 1994 are provisional.

The number of deaths attributed to CJD among persons aged <45 years ranged from zero in 1984 to eight in 1981 and 1993. In most years no CJD-associated deaths were reported among persons aged <30 years; no year had more than one. During 1990–1994, CJD was coded as a cause of death on the death certificate for two persons aged <30 years. One of these two died in 1993 and had been previously identified as part of ongoing surveillance for CJD among recipients of pituitary-derived humangrowth hormone; the other died in 1994, but was excluded from analysis because follow-up investigation revealed a postmortem examination that did not confirm the initial CJD diagnosis but indicated a diffuse T-cell proliferative disease.

#### **Active CJD Surveillance**

In early April 1996, active surveillance for the newly reported variant of CJD and physician-diagnosed CJD cases was conducted in four Emerging Infections Program<sup>†</sup> sites (Connecticut, Minnesota, Oregon, and the San Francisco Bay area of California) and the Division of Public Health, Georgia Department of Human Resources, along with the Atlanta Metropolitan Active Surveillance Project (total 1993 population for these areas: 16.3 million). CJD deaths were defined as any deaths that the surveillance teams in each of these five sites identified as having been attributed to CJD by a physician. Surveillance efforts included review of available death certificate data during

<sup>&</sup>lt;sup>†</sup>Emerging infections programs were established in 1994 through cooperative agreements between CDC and state health departments to conduct special surveillance and laboratory/epidemiologic projects and to pilot and evaluate prevention programs.

#### Creutzfeldt-Jakob Disease - Continued

1991–1995 and contact by phone, mail, or fax with neurologists, neuropathologists, and pathologists to identify patients who died from CJD during 1991–1995. Approximately 800 neurologists and neuropathologists, constituting 92%–100% of these specialists in these surveillance areas, and >90% of pathologists in three areas were contacted. In addition, clinical and neuropathologic records for each CJD patient aged <55 years were sought for review.

A total of 94 deaths attributed to CJD were identified in the active surveillance areas during 1991–1995. The annual number of CJD deaths was stable (mean: 19; range: 18–19), and the average annual CJD death rate was 1.2 (range by site: 0.7–1.7) per million population (Table 1). Consistent with the national CJD mortality pattern, nine (10%) of the 94 patients were aged <55 years; one of the nine was aged <45 years, and none were aged <30 years.

The clinical and neuropathologic record review of the nine patients aged <55 years did not identify any with the variant form of CJD. A brain biopsy was performed for the one decedent who was aged <45 years, and an autopsy was performed for four of the other eight. One decedent for whom there was no brain biopsy or autopsy was a familial case of CJD from a family that had a known genetic abnormality associated with CJD.

One additional CJD patient aged <45 years who died in early 1996 was identified by the surveillance teams. This decedent's clinical history was similar to the description of the new variant of CJD, but brain pathology at autopsy was inconsistent with that diagnosis.

Of the 94 CJD deaths, 81 (86%) were identified from death certificate review. For the 13 deaths that were identified only through survey of neurologists, neuropathologists, or pathologists, the death certificate either was not coded as CJD or had not yet been filed.

Reported by: A Reingold, MD, Univ of California at Berkeley, G Rothrock, MPH, California Emerging Infections Program, M Starr, DVM, K Reilly, DVM, D Vugia, MD, S Waterman, MD, State Epidemiologist, California State Dept of Health Svcs. R Marcus, School of Medicine, Yale Univ, New Haven; M Cartter, MD, J Hadler, MD, State Epidemiologist, Connecticut State Dept of Public Health. M Farley, MD, M Bardsley, MPH, W Baughman, MSPH, Atlanta Metropolitan

TABLE 1. Number of deaths from Creutzfeldt-Jakob disease, by year and age group, and average annual death rate,\* by age group — active surveillance sites,† 1991–1995

	Age group (yrs)									
Year	<55	≥55	Total							
1991	2	17	19							
1992	25	17	19							
1993	1	17	18							
1994	1	18	19							
1995	3	16	19							
Total	9	85	94							
Rate	0.1	5.3	1.2							

<sup>\*</sup>Per million population.

Emerging Infections Program sites (Connecticut, Minnesota, Oregon, and the San Francisco Bay area of California) and the Division of Public Health, Georgia Department of Human Resources, along with the Atlanta Metropolitan Active Surveillance Project (total 1993 population for these areas: 16.3 million).

One case occurred in a person aged <45 years.

#### Creutzfeldt-Jakob Disease - Continued

Active Surveillance Project, J Koehler, DVM, K Toomey, MD, State Epidemiologist, Div of Public Health, Georgia Dept of Human Resources. R Danila, PhD, K MacDonald, MD, M Osterholm, PhD, State Epidemiologist, Minnesota Dept of Health. E DeBess, DVM, S Ladd-Wilson, MS, P Cieslak, MD, D Fleming, MD, State Epidemiologist, Oregon Health Div. State Br, Div of Applied Public Health Training (proposed), Epidemiology Program Office; Office of the Director, National Center for Infectious Diseases; Special Pathogens Br and Office of the Director, Div of Viral and Rickettsial Diseases, National Center for Infectious Diseases, CDC.

Editorial Note: This analysis did not detect evidence of a recent outbreak of the newly described variant of CJD in the United States. Limitations of the surveillance data include the absence of neuropathologic examinations of brain tissue for many patients with CJD and the limited size of the population under active surveillance. Nonetheless, the conclusions also are supported by a review of 67 brain specimens from confirmed CJD patients in the United States submitted during 1991–1996 to the University of California at San Francisco, a CJD neuropathology center; none of these specimens had the neuropathologic features of the variant form of CJD (S. DeArmond, and S. Prusiner, University of California at San Francisco, personal communication, 1996).

The active surveillance efforts also confirmed the findings of an earlier study indicating that death certificate reviews identify ≥80% of CJD deaths in the United States (4). To broaden surveillance for the variant form of CJD in the United States, CDC is encouraging physicians to increase their index of suspicion for this illness and, with state and territorial epidemiologists, is investigating CJD deaths among persons aged <55 years identified through routinely reported mortality data. CDC also is working with the American Association of Neuropathologists to improve surveillance for CJD in all age groups. Recent experimental evidence involving intracerebral inoculation of cynomolgus macague monkeys with brain tissue obtained from cattle with BSE supports a possible causal link between BSE and the variant CJD (5). Therefore, ongoing CJD and BSE surveillance in many countries of the world, including the United States and especially in the UK, will be critical for determining whether and to what extent the agent of BSE is causing disease in humans. This need is underscored by the report during March 20-June 26, 1996, of two additional confirmed cases of the newly recognized variant of CJD in persons with onset at age <30 years, one in France and one in the UK (6).

#### References

- CDC. World Health Organization consultation on public health issues related to bovine spongiform encephalopathy and the emergence of a new variant of Creutzfeldt-Jakob disease. MMWR 1996;45:295–6.303.
- Will RG, Ironside JW, Zeidler M, et al. A new variant of Creutzfeldt-Jakob disease in the UK. Lancet 1996;347:921–5.
- Holman RC, Khan AS, Kent J, Strine TW, Schonberger LB. Epidemiology of Creutzfeldt-Jakob disease in the United States, 1979–1990: analysis of national mortality data. Neuroepidemiology 1995;14:174–81.
- Davanipour Z, Smoak C, Bohr T, Sobel E, Liwnicz B, Chang S. Death certificates: an efficient source for ascertainment of Creutzfeldt-Jakob disease cases. Neuroepidemiology 1995;14:1–6.
- Lasmézas CI, Deslys JP, Demaimay R, et al. BSE transmission to macaques. Nature 1996;381: 743–4.
- Chazot G, Broussolle E, Lapras C, Blättler T, Aguzzi A, Kopp N. New variant of Creutzfeldt-Jakob disease in a 26-year-old French man [Letter]. Lancet 1996;347:1181.

## Family Violence Education in Medical School-Based Residency Programs — Virginia, 1995

In the United States, family violence (e.g., intimate partner violence, child abuse, and elder abuse) is a well-documented social and public health problem that physicians are uniquely positioned to play a crucial role in addressing (1,2). However, few schools of medicine or residency training programs provide substantial attention to family violence in their curricula (3-5). To assess the status of graduate medical education regarding family violence at Virginia's three medical schools (Eastern Virginia Medical School [EVMS], Medical College of Virginia [MCV], and the University of Virginia [UVA]), the Task Force on Violence Education and Awareness for Physicians, established by the Virginia Commission on Family Violence, conducted a survey of these medical schools in 1995. This report summarizes the results of the survey, which identified variations in the formal programs to address family violence at these schools.

The task force distributed questionnaires to directors of the 69 fully accredited medical school-based residency programs in the three schools (EVMS, 20; MCV, 29; and UVA, 20) asking them to indicate the presence in the curriculum of instruction on specific types of family abuse and sexual assault, to indicate whether such teaching was required or elective, and to describe materials and methods used in the curriculum. In addition, the directors were asked to identify faculty at their institution who were experts in the area of family violence and to list the area of their expertise. To increase the likelihood of response to the survey, respondents were informed that only aggregate results would be reported. Therefore, program-specific findings are not included in this report.

Of the 69 residency programs surveyed, 48 (70%) responded. Of the 48, a total of 26 (54%) indicated they included content related to family violence in their curricula. A total of 20 (42%) covered child abuse (the content area most frequently covered), 13 (27%) covered battered women, and nine (19%) covered elder abuse.

Whether instruction courses were required or elective varied substantially among the programs. Sixteen of the 20 programs that provided some instruction on child abuse had required courses, as did 10 of the 13 programs that covered battered women and seven of the nine programs that covered elder abuse. In addition, the instructional methods for the existing curricula varied; they included regularly scheduled grand rounds on family violence topics, occasional discussion of these topics as part of "noon" conferences, informal instruction from attending physicians during rounds, and "brown bag" series discussions and presentations.

Of the 27 experts on family violence identified, 16 had expertise in identifying and treating family violence-related injuries. Other areas in which experts were identified included child abuse, elder abuse, violence against women during pregnancy, post-traumatic stress disorder in children, and community response to violence. No expert was identified in the areas of mental health sequelae of family violence, transgenerational transmission of violence, and violence prevention.

Reported by: MK Hendricks-Matthews, PhD, Dept of Preventive Medicine and Community Health, Medical College of Virginia/Virginia Commonwealth Univ, Richmond. Div of Violence Prevention, National Center for Injury Prevention and Control, CDC.

Editorial Note: Victims and/or witnesses of family violence seek care in all medical settings more often than do persons without such a history (6), overuse medical services

Family Violence Education — Continued

(7), and may be aided through intervention by physicians (1,2). For physicians to intervene, however, they must be adequately trained to identify victims and potential victims of abuse, help them receive treatment, understand the deleterious effects of violence, teach patients about violence prevention, and become comfortable with their role as collaborators with professionals from other disciplines who deal with violence. Although physicians are recognized as having critical roles in this arena, the findings in this survey and others (3,4) indicate that instruction about family violence is still limited and without standardization. The findings in this analysis of medical schools in Virginia is consistent with training offered in most medical schools and residency programs (6).

The results of the survey described in this report are subject to at least three limitations. First, no attempt was made to contact nonresponding residency programs; survey responses from those programs could have differed from those that did respond. Second, the survey did not have precise criteria for defining presence of family-violence instruction in program curricula (e.g., the amount of time spent teaching specific areas of family violence), which could have resulted in overestimating the amount of family-violence curricula in place. Finally, no assessment of the quality of

curricula was made.

The task force used results of this survey to develop five recommendations regarding medical education about family violence in Virginia (8): 1) formally integrate family-violence curricula into medical school and internship/residency programs; 2) use model curricula developed nationally as a base for training programs; 3) develop an in-school assessment tool to track each school's efforts; 4) have the medical schools, the commission, and the state medical society jointly sponsor a statewide medical-education conference for faculty and other interested persons; and 5) develop statewide mechanisms to coordinate family-violence prevention services available through medical, legal, judicial, social services, political, and business agencies and services. These recommendations were adopted by the commission and presented in a report of the commission to the governor and the 1996 General Assembly of Virginia; the General Assembly accepted the recommendations and agreed to continue support for the commission's activities. In addition, the deans of the three medical schools agreed to collaborate on efforts to more thoroughly and systematically integrate violence education into their residency programs and to develop longitudinal, multidisciplinary instruction at the predoctoral level.

In U.S. medical schools and residency programs, family violence education in the curriculum often is brief and not reinforced in residency programs. Most hospitals do not have programs or policies to train and support physicians for work with abuse victims. The study in Virginia illustrates the need for a nationwide assessment of curricula and faculty development in medical school and residency programs and creation of an ongoing reinforcement protocol throughout the health-care system, with evaluation instituted at all levels within each program. CDC is developing an annotative bibliography of training programs to assist medical training programs, health-care organizations, and advocacy groups in identifying curricula and protocols. A framework for evaluating these programs also is being developed. Both will be available from CDC's National Center for Injury Prevention and Control in the spring of

1997.

Family Violence Education — Continued

#### References

- Hendricks-Matthews M. Family physicians and violence: Looking back, looking ahead. Am Fam Phys 1992;45:2033-5.
- American Medial Association. Family violence: building a coordinated community response a guide for communities. Chicago, Illinois: American Medical Association, 1996.
- CDC. Education about adult domestic violence in U.S. and Canadian medical schools, 1987–88.
   MMWR 1989:38:17–9.
- CDC. Violence education in family practice residency programs—United States, 1989. MMWR 1991:40:428–30.
- Alpert EJ. Making a place for teaching about family violence in medical school. Acad Med 1995;70:974–8.
- Goldman LS, Horan D, Warshaw C, Kaplan S, Hendricks-Matthews M. Diagnostic and treatment guidelines on mental health effects of family violence. Chicago, Illinois: American Medical Association. 1995.
- Koss MP, Koss PG, Woodruff WJ. Deleterious effects of criminal victimization on women's health and medical utilization. Arch Intern Med 1991;151:342-7.
- Hendricks-Matthews M (chairperson). Task Force on Violence Education and Awareness for Physicians: report and recommendations. Richmond, Virginia: The Virginia Commission on Family Violence Prevention, 1995.

# Ochrobactrum anthropi Meningitis Associated with Cadaveric Pericardial Tissue Processed with a Contaminated Solution — Utah, 1994

From October 22 through November 3, 1994, three cases of *Ochrobactrum anthropi* meningitis were diagnosed among pediatric patients at a hospital in Utah (hospital A). The three patients had undergone neurosurgical procedures in which pericardial grafts processed at hospital B were used to close defects of the dura mater. This report summarizes the case investigations, which document that the cases resulted from human pericardial tissue grafts contaminated with *O. anthropi*.

A preliminary investigation revealed that the patients were not hospitalized on the same ward in hospital A and did not have surgery on the same day. Although the first two patients received pericardial tissue from one donor, the third patient received tissue from a different donor. The solutions used to process the pericardial grafts before implantation were Hanks' balanced salt solution (HBSS), 25% albumin, dimethyl sulfoxide, gentamicin, and penicillin. The grafts from the two pericardial-tissue donors had been prepared using the same lots of solutions.

Because of suspected bacterial contamination of the processing solutions, samples were analyzed from all available solutions that had been used to process the pericardial grafts. The only positive cultures were from samples obtained from two unopened bottles (one with the plastic wrapper intact and one with the wrapper removed) of HBSS (lot no. 17N2041) manufactured by Life Technologies, Inc. (Grand Island, New York). The bottles were labeled "Sterile—For in vitro diagnostic use; For cell culture or further manufacturing uses." The HBSS was for in vitro use but not for use in animals and humans. O. anthropi was isolated from the unwrapped, unopened bottle of HBSS, and Pseudomonas stutzeri was isolated from the wrapped, unopened bottle. None of the HBSS used to process the pericardial tissue from the two donors was available for analysis; however, the solution also was from lot no. 17N2041.

Ochrobactrum anthropi Meningitis - Continued

Frozen pericardial tissue was available from one donor; cultures of this tissue also grew O. anthropi and P. stutzeri.

To evaluate the laboratory techniques used to process the tissue grafts at hospital B, CDC and hospital B conducted a joint investigation. The investigation indicated that procedures to process tissue grafts generally were performed aseptically; however, investigators observed instances when sterile technique was not used. This finding suggests that extrinsic contamination of the pericardial grafts with *O. anthropi* could have occurred during processing or freezing. After notification of the manufacturer and the Food and Drug Administration (FDA) about intrinsic contamination of the HBSS with *P. stutzeri*, the manufacturer issued a voluntary recall of the implicated lot of HBSS. CDC, in collaboration with the state health department and FDA, is conducting an ongoing investigation to determine the cause of intrinsic contamination of the

Reported by: JC Christenson, MD, AT Pavia, MD, ML Woods, MD, K Carroll, MD, School of Medicine, Univ of Utah; C Nichols, MPA, State Epidemiologist, Utah Dept of Health. Center for Devices and Radiological Health, Food and Drug Administration. Hospital Infections Program, National Center for Infectious Diseases, CDC.

Editorial Note: O. anthropi (formerly CDC Group Vd, Achromobacter spp.) is a motile, gram-negative bacillus found in the environment (1); it has only rarely been reported as a human pathogen (2-5). The investigation described in this report documents a cluster of nosocomial meningitis cases resulting from O. anthropi infection transmitted by contaminated human pericardial tissue grafts that probably were contaminated during processing with the implicated lot of HBSS. The source of contamination of the HBSS with O. anthropi is unknown.

As transplantation of tissues of both human (allograft) and animal (xenograft) origin increases, infection-control problems—including infection with unusual human pathogens—may become increasingly common. After harvesting tissue grafts, contamination can occur during the extensive processing procedures or during preservation procedures before implantation. Furthermore, recipients of certain tissue grafts (e.g., solid organs such as kidney and heart) require immunosuppression to reduce the risk for graft rejection, and immunosuppression can result in susceptibility to organisms that may have contaminated the graft tissue. Multiple viral, bacterial, fungal, and parasitic agents have been linked to infections associated with tissue grafts (6).

As tissue transplants become more widespread, more stringent infection-control guidelines will be needed. Issues in the tissue-banking industry—such as tissue preparation with solutions marketed for in vitro use only—need to be addressed. In addition, routine infection-control practices (assessing sterility of transplant tissue before and after processing and storage) and post-transplant infection surveillance are critical.

To determine the magnitude of this problem, clinicians who identify patients with infections associated with the use of HBSS manufactured by Life Technologies, Inc., are requested to report such cases through the state health department to FDA's Med-Watch Program, telephone (800) 332-1088 ([301] 738-7553), and CDC's Hospital Infections Program, National Center for Infectious Diseases, telephone (404) 639-6413.

Ochrobactrum anthropi Meningitis - Continued

#### References

- Holmes B, Popoff M, Kiredjian M, Kersters K. Ochrobactrum anthropi gen. nov., sp. nov. from human clinical specimens and previously known as group Vd. Int J Syst Bacteriol 1988;37: 406–16.
- Alnor D, Frimodt-Meller N, Espersen F, Frederiksen W. Infections with the unusual human pathogen Agrobacterium species and Ochrobactrum anthropi. Clin Infect Dis 1994;18:914–20.
- Kern WV, Oethinger M, Kaufhold A, Rozdzinski E, Marre R. Ochrobactrum anthropi bacteremia: report of four cases and short review. Infection 1993;21:306–10.
- Cieslak TJ, Robb ML, Drabick CJ, Fischer GW. Catheter-associated sepsis caused by Ochrobactrum anthropi: report of a case and review of related nonfermentative bacteria. Clin Infect Dis 1992;14:902–7.
- 5. Ezzedine H, Mourad M, Van Ossel C, et al. An outbreak of *Ochrobactrum anthropi* bacteraemia in five organ transplant patients. J Hosp Infect 1994;27:35–42.
- Gottesdiener KM. Transplanted infections: donor-to-host transmission with the allograft. Ann Intern Med 1989;110:1001–16.

#### State-Specific Prevalence of Participation in Physical Activity — Behavioral Risk Factor Surveillance System, 1994

Participation in physical activity on a regular basis provides important health benefits, including reduced risk for heart disease, colon cancer, diabetes, and high blood pressure. Regular physical activity also helps control weight; contributes to development and maintenance of healthy bones, muscles, and joints; and reduces symptoms of anxiety and depression (1). Recent recommendations have emphasized moderate intensity activities nearly every day for those who are unable to maintain the previously recommended program of strenuous activity three times a week (2). To determine the proportion of adults who are participating in regular physical activity, regardless of the level of intensity, CDC analyzed data from the 1994 Behavioral Risk Factor Surveillance System (BRFSS). This report summarizes the results of that analysis, which indicates that, in every state surveyed, most adults are not participating in regular physical activity.

The BRFSS is a population-based, random-digit-dialed telephone survey of the noninstitutionalized U.S. population aged ≥18 years. Data were available for 105,390 respondents in 49 states and the District of Columbia. Respondents were asked about the frequency, duration, and intensity of leisure-time physical activities during the preceding month and were categorized as having reported no leisure-time physical activity, irregular activity that did not meet the recommended criteria for either regular sustained or regular vigorous physical activity, or regular activity meeting either the previous recommendation for regular vigorous physical activity (≥20 minutes per day of vigorous physical activity on ≥3 days per week) or for regular sustained physical activity of any intensity (an average of ≥30 minutes per day of activity on ≥5 days per week). Data were weighted and aggregated, and composite estimates and standard errors were calculated using SESUDAAN. Age-adjusted prevalence estimates and 95% confidence intervals were calculated by state.

Overall, reported participation in regular physical activity by state ranged from 16.0% (District of Columbia) to 35.7% (Oregon) (median: 26.9%) (Table 1). The ranges among states were similar for men (15.8% to 39.0%) and women (15.6% to 38.3%). Participation in no leisure-time physical activity ranged from 18.3% (Washington) to

Participation in Physical Activity - Continued

TABLE 1. Percentage of respondents reporting leisure-time physical activity, by level of activity and state - United States, Behavioral Risk Factor Surveillance System, 1994\*

	Level of activity												
	R	egular <sup>†</sup>	Insul	fficient <sup>§</sup>		None	Irre	egular¶					
State	%	(95% CI**)	%	(95% CI)	%	(95% CI)	%	(95% CI					
Alabama	23.5	(±2.3%)	76.5	(±2.3%)	45.8	(±2.7%)	30.7	(±2.4%)					
Alaska	32.9	(±3.6%)	67.1	(±3.6%)	26.0	(±3.6%)	41.0	(±3.9%)					
Arizona	28.2	(±2.9%)	71.8	(±2.9%)	23.7	(±2.7%)	48.1	(±3.2%)					
Arkansas	22.1	(±2.3%)	77.9	(±2.3%)	34.5	(±2.7%)	43.4	(±2.8%					
California	29.7	(±1.7%)	70.3	(±1.7%)	21.9	(±1.5%)	48.4	(±1.8%					
Colorado	32.8	(±2.6%)	67.2	(±2.6%)	17.9	(±2.2%)	49.2	(±2.7%					
Connecticut	34.1	(±2.7%)	65.9	(±2.7%)	21.8	(±2.1%)	44.2	(±2.7%					
Delaware	25.5	(±2.2%)	74.5	(±2.2%)	36.5	(±2.4%)	38.0	(±2.4%					
District of Columbia	16.0	(±2.3%)	84.0	(±2.3%)	49.3	(±3.3%)	34.7	(±2.8%					
Florida	32.2	(±1.7%)	67.8	(±1.7%)	27.4	(±1.7%)	40.4	(±1.9%					
Georgia	25.5	(±2.1%)	74.5	(±2.1%)	34.1	(±2.3%)	40.4	(±2.2%					
Hawaii	33.9	(±2.5%)	66.1	(±2.5%)	21.3	(±2.2%)	44.7	(±2.7%					
Idaho	32.3	(±2.8%)	67.7	(±2.8%)	21.8	(±2.2%)	45.9	(±2.8%					
Illinois	23.9	(±2.1%)	76.1	(±2.1%)	33.4	(±2.4%)	42.8	(±2.4%					
Indiana	25.0	(±2.0%)	75.0	(±2.0%)	29.5	(±2.0%)	45.5	(±2.2%					
lowa	23.0	(±1.9%)	77.0	(±1.9%)	32.7	(±2.0%)	44.2	(±2.1%					
Kansas	24.9	(±2.6%)	75.1	(±2.6%)	33.9	(±2.7%)	41.1	(±2.9%					
Kentucky	19.3	(±1.9%)	80.7	(±1.9%)	45.7	(±2.3%)	35.0	(±2.1%					
Louisiana	22.5	(±2.3%)	77.5	(±2.3%)	33.5	(±2.7%)	43.9	(±2.9%					
Maine	18.5	(±2.3%)	81.5	(±2.3%)	41.0	(±3.0%)	40.4	(±3.0%					
Maryland	25.8	(±1.5%)	74.2	(±1.5%)	31.1	(±1.7%)	43.1	(±1.7%					
Massachusetts	31.8	(±2.6%)	68.2	(±2.6%)	24.4	(±2.3%)	43.8	(±2.7%					
Michigan	29.1	(±2.1%)	70.9	(±2.1%)	23.4	(±1.9%)	47.6	(±2.2%					
Minnesota	28.1	(±1.6%)	71.9	(±1.6%)	22.0	(±1.4%)	50.0	(±1.7%					
Mississippi	19.6	(±2.3%)	80.4	(±2.3%)	38.3	(±2.8%)	42.1	(±2.8%					
Missouri	24.1	(±2.5%)	75.9	(±2.5%)	31.0	(±2.7%)	44.9	(±2.9%					
Montana	28.1	(±2.8%)	71.9	(±2.8%)	20.7	(±2.4%)	51.2	(±3.1%					
Nebraska	24.7	(±2.2%)	75.3	(±2.2%)	24.1	(±2.1%)	51.2	(±2.6%					
Nevada	31.7	(±2.6%)	68.3	(±2.6%)	21.6	(±2.2%)	46.7	(±2.7%					
New Hampshire	29.8	(±2.6%)	70.2	(±2.6%)	26.1	(±2.5%)	44.1	(±2.9%					
New Jersey	26.7	(±2.6%)	73.3	(±2.6%)	30.5	(±2.7%)	42.7	(±3.0%					
New Mexico	35.4	(±3.1%)	64.6	(±3.1%)	19.7	(±2.5%)	44.9	(±3.2%					
New York	20.9	(±1.9%)	79.1	(±1.9%)	36.9	(±2.4%)	42.2	(±2.3%					
North Carolina	17.9	(±1.9%)	82.1	(±1.9%)	43.0	(±2.4%)	39.0	(±2.4%					
North Dakota	27.1	(±2.3%)	72.9	(±2.3%)	32.0	(±2.4%)	40.8	(±2.5%					
Ohio	21.5	(±2.5%)	78.5	(±2.5%)	38.0	(±3.1%)	40.5	(±3.2%					
Oklahoma	28.5	(±2.4%)	71.5	(±2.4%)	30.0	(±2.4%)	41.5	(±2.7%					
Oregon	35.7	(±2.1%)	64.3	(±2.1%)	20.8	(±1.6%)	43.5	(±2.7%					
Pennsylvania	28.7	(±1.7%)	71.3	(±1.7%)	25.8	(±1.6%)	45.5	(±1.9%					
South Carolina	21.7	(±2.0%)	78.3	(±2.0%)	31.7	(±2.2%)	46.6	(±2.4%					
South Dakota	26.2	(±2.3%)	73.8	(±2.3%)	30.0	(±2.4%)	43.8	(±2.5%					
Tennessee	22.0	(±1.7%)	78.0	(±1.7%)	39.8	(±2.4%)	38.2	(±1.9%					
Texas	26.5	(±2.7%)	73.5	(±1.7%)	28.3	(±2.0%)	45.3	(±3.1%					
Utah	28.5	(±2.7%)	71.5	(±2.7%)	22.2	(±2.7%)	49.3						
Vermont	34.5	(±2.3%)	65.5					(±2.5%					
Virginia				(±2.2%)	24.0	(±1.9%)	41.5	(±2.3%					
Washington	31.4 33.4	(±2.5%)	68.6	(±2.5%)	23.7	(±2.3%)	44.9	(±2.6%					
West Virginia		(±1.8%)	66.6	(±1.8%)	18.3	(±1.4%)	48.4	(±1.9%					
Wisconsin	19.8	(±2.0%)	80.2	(±2.0%)	44.1	(±2.2%)	36.1	(±2.3%					
	29.1	(±2.8%)	70.9	(±2.8%)	25.7	(±2.7%)	45.2	(±3.19					
Wyoming	35.1	(±3.3%)	64.9	(±3.3%)	21.0	(±2.5%)	43.9	(±3.49					

n=105,390.
 Activity meeting either the recommendation for regular vigorous physical activity (≥20 minutes per day of vigorous physical activity on ≥3 days per week) or the recommendation for regular sustained physical activity (an average of ≥30 minutes per day of activity on ≥5 days per week).
 Combination of those with no leisure-time physical activity and those with irregular activity.
 Did not meet the recommended criteria for either regular sustained or regular vigorous physical activity.

<sup>\*\*</sup> Confidence interval.

Participation in Physical Activity — Continued

49.3% (District of Columbia) (median: 28.9%). For men, the range among states was from 16.0% to 49.1% for no leisure-time physical activity and for women, from 19.5% to 50.1%. For insufficient physical activity (no leisure-time activity and irregular activity combined), estimates ranged from 64.3% to 84.0% (median: 73.1%).

Reported by the following BRFSS coordinators: J Durham, MPA, Alabama: P Owen, Alaska: B Bender, Arizona; J Senner, PhD, Arkansas; B Davis, PhD, California; M Leff, MSPH, Colorado; M Adams, MPH, Connecticut; F Breukelman, Delaware; C Mitchell, District of Columbia; D McTague, MS, Florida; E Pledger, MPA, Georgia; J Cooper, MA, Hawaii; C Johnson, MPH, Idaho; B Steiner, MS, Illinois; N Costello, MPA, Indiana; P Busick, Iowa; M Perry, Kansas; K Asher, Kentucky; A Bayakly, Louisiana; D Maines, Maine; A Weinstein, MA, Maryland: D Brooks, MPH, Massachusetts; H McGee, MPH, Michigan; N Salem, PhD, Minnesota; S Loyd, Mississippi; J Jackson-Thompson, PhD, Missouri; P Smith, Montana; S Huffman, Nebraska; E DeJan, MPH, Nevada; K Zaso, MPH, New Hampshire; G Boeselager, MS, New Jersey; P Jaramillo, MPA, New Mexico; C Maylahn, MPH, New York; G Lengerich, VMD, North Carolina; J Kaske, MPH, North Dakota; R Indian, MS, Ohio; N Hann, MPH, Oklahoma; J Grant-Worley, MS, Oregon: L Mann, Pennsylvania: J Ferguson, PhD, South Carolina: M Gildemaster, South Dakota: D Ridings, Tennessee: R Diamond, MPH, Texas: R Giles, Utah: R McIntyre, PhD, Vermont; J Stones, Virginia: K Wynkoop-Simmons, PhD, Washington: F King, West Virginia: E Cautley, MS, Wisconsin; M Futa, MA, Wyoming. Physical Activity and Health Br, Div of Nutrition and Physical Activity, National Center for Chronic Disease Prevention and Health Promotion, CDC. Editorial Note: The findings in this report indicate that most persons in the United States are not regularly physically active. Although considerable variation exists between states, in every state surveyed, ≥60% of adults do not achieve the recommended amount of physical activity, and in half of the states, >73% are insufficiently active.

Regular participation in physical activity was similar for men and women. Although this report does not examine differences in participation in physical activity by other demographic factors, previous reports indicate that physical activity levels are particularly low among persons with less education and income and among older adults (1.3).

The Surgeon General's report on physical activity and health (1) highlighted numerous important health benefits associated with regular participation in physical activity and emphasized that even moderate levels of physical activity provide substantial health benefits (1). A comprehensive public health effort is needed to address the pervasive problem of insufficient physical activity and should include individualized outreach, mass media efforts, professional education of health-care providers and teachers in techniques to encourage physical activity, and environmental and policy strategies aimed at increasing opportunities for persons to be physically active. Physical activities that can promote health include brisk walking, raking leaves, social dancing, washing and waxing a car, using stairs rather than an elevator, bicycling, swimming, and playing sports.

#### References

- US Department of Health and Human Services. Physical activity and health: a report of the Surgeon General. Atlanta: US Department of Health and Human Services, Public Health Service, CDC, 1996.
- Pate RR, Pratt M, Blair SN, et al. Physical activity and public health: a recommendation from the Centers for Disease Control and Prevention and the American College of Sports Medicine. JAMA 1995;273:402-7.
- CDC. Prevalence of sedentary lifestyle—Behavioral Risk Factor Surveillance System, United States, 1991. MMWR 1993;42:576–9.

#### Notice to Readers

#### Food and Drug Administration Approval of an Acellular Pertussis Vaccine for the Initial Four Doses of the Diphtheria, Tetanus, and Pertussis Vaccination Series

The Advisory Committee on Immunization Practices (ACIP) and the Committee on Infectious Diseases, American Academy of Pediatrics, recommend that children routinely receive a series of five doses of vaccine against diphtheria, tetanus, and pertussis before age 7 years (1.2). On July 31, 1996, the Food and Drug Administration licensed Connaught Laboratories, Inc.\* (Swiftwater, Pennsylvania), to distribute a combined diphtheria and tetanus toxoids and acellular pertussis vaccine (DTaP) (Tripedia®t), for the initial four doses of the diphtheria, tetanus, and pertussis vaccination series. Vaccine doses should be administered at ages 2 months, 4 months, 6 months, and 15-20 months, with an interval of at least 6 months between the third and fourth doses. Available data are insufficient to evaluate the use of Tripedia® as a fifth dose among children aged 4-6 years who have received Tripedia® for the previous four doses. Additional information about the immunogenicity and safety of a fifth dose following four previous doses of the same acellular vaccine is being collected and should be available before infants started on this new schedule are aged 4-6 years and require a fifth dose.

Tripedia<sup>®</sup> is the first acellular pertussis vaccine to be licensed in the United States for the first three doses of the diphtheria, tetanus, and pertussis vaccination series. Tripedia® may be used to complete the primary series in infants who have received one or two doses of diphtheria and tetanus toxoids and whole-cell pertussis vaccine (DTP). For children who have received DTP for the first three doses of the series, two acellular pertussis vaccines (Tripedia® and ACEL-IMUNE® [Wyeth-Lederle Vaccines and Pediatrics (Pearl River, New York)]) already are licensed for the fourth and fifth doses of the series (3.4). The fifth dose of either DTaP or DTP is not necessary if the

fourth dose was administered on or after the fourth birthday (1.2).

The following evidence supports use of Tripedia® for the first four doses of the diphtheria, tetanus, and pertussis vaccination series:

1. The rates of local reactions, fever, and other common systemic symptoms following receipt of Tripedia<sup>®</sup> inoculations are lower than those following whole-cell DTP vaccination for each of the first four doses in the series (3,5; Connaught Laborato-

ries, Inc., unpublished data).

2. The protective efficacy of three doses of Tripedia® against pertussis disease (defined as cough lasting >21 days with culture confirmation of infection with Bordetella pertussis) when administered at approximately 3, 5, and 7 months of age was 80% (95% confidence interval [CI]=59%-90%) in a case-control study in Germany (Connaught Laboratories, Inc., unpublished data). In a randomized,

<sup>\*</sup>Use of trade names and commercial sources is for identification only and does not imply endorsement by the Public Health Service or the U.S. Department of Health and Human

Diphtheria and Tetanus Toxoids and Acellular Pertussis Vaccine, Adsorbed, prepared and distributed by Connaught Laboratories, Inc. The purified acellular pertussis component is produced by BIKEN/Tanabe Corporation (Osaka, Japan) and is combined with diphtheria and tetanus toxoids manufactured by Connaught Laboratories, Inc.

#### Notices to Readers - Continued

placebo-controlled clinical trial in Sweden, the acellular component of this vaccine manufactured by BIKEN, Inc., was administered as a two-dose series to children aged 5–14 months (6). Point estimates of protective efficacy were 69% (95% Cl=47%–82%) for cases of culture-confirmed pertussis with any cough lasting ≥1 day and 79% (95% Cl=57%–90%) for cases of culture-confirmed disease of >30 days' duration.

Because of the reduced frequency of adverse reactions and high efficacy, the ACIP recommends DTaP for routine use as the first four doses of the pertussis vaccination series. During the transition period from use of whole-cell DTP to DTaP, vaccines containing a whole-cell pertussis component continue to be an acceptable alternative for all doses in the pertussis vaccination series. A complete statement by the ACIP about recommendations for use of DTaP among infants is being developed.

#### References

- ACIP. Diphtheria, tetanus, and pertussis: recommendations for vaccine use and other preventive measures—recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1991;40(no. RR-10).
- American Academy of Pediatrics. Report of the Committee on Infectious Diseases. Elk Grove Village, Illinois: American Academy of Pediatrics, Committee on Infectious Diseases, 1991.
- CDC. Pertussis vaccination: acellular pertussis vaccine for the fourth and fifth doses of the DTP series—update to the supplementary ACIP statement. Recommendations of the Advisory Committee on Immunization Practices. MMWR 1992;41(no. RR-15).
- CDC. Pertussis vaccination: acellular pertussis vaccine for reinforcing and booster use supplementary ACIP statement. Recommendations of the Immunization Practices Advisory Committee (ACIP). MMWR 1992;41(no. RR-1).
- Decker MD, Edwards KM, Steinhoff MC, et al. Comparison of 13 acellular pertussis vaccines: adverse reactions. Pediatrics 1995;96(suppl):557–66.
- 6. Ad Hoc Group for the Study of Pertussis Vaccines. Placebo-controlled trial of two acellular pertussis vaccines in Sweden—protective efficacy and adverse events. Lancet 1988;1:955–60.

#### Notice to Readers

#### Prevention 97 Conference: Science, Technology, and Practice

Prevention 97, the 14th annual national preventive medicine meeting, will be sponsored by the American College of Preventive Medicine and the Association of Teachers of Preventive Medicine in collaboration with CDC and other national health agencies in Atlanta, March 20–23, 1997. The conference will explore current science, technology, and practice for preventive medicine in the health-care system. Information about registration and submission of abstracts is available from the Meetings Manager, Prevention 97, 1660 L Street, N.W., Suite 206, Washington, DC, 20036-5603; telephone (202) 466-2569.

Notices to Readers — Continued Notice to Readers

#### Course in Hospital Epidemiology

CDC and the Society for Healthcare Epidemiology of America (SHEA) will cosponsor a hospital epidemiology training course October 5–8, 1996, in San Antonio, Texas. The course, designed for infectious disease fellows, new hospital epidemiologists, and infection-control practitioners, provides hands-on exercises to improve skills in detection, investigation, and control of epidemiologic problems encountered in the hospital setting and lectures and seminars on fundamental aspects of hospital epidemiology.

Additional information is available from SHEA Meetings Department, 875 Kings Highway, Suite 200, Woodbury, NJ 08095-3172; telephone (609) 845-1720; fax (609) 853-0411.

#### Notice to Readers

#### Satellite Videoconference

On September 5, 1996, "Nasopharyngeal Radium Irradiation: Current Medical Issues," a live satellite videoconference, will be broadcast to sites nationwide from 12:30 p.m. to 2:30 p.m. eastern daylight time on the Public Health Training Network. Cosponsors are CDC, the U.S. Department of Veterans Affairs, the U.S. Department of Defense, and the Association of State and Territorial Health Officials.

From 1940 until the mid-1960s, nasopharyngeal radium irradiation was used to treat children with chronic ear infections and hearing loss, and World War II submariners and aviators with otic barotrauma. An estimated 500,000–2 million persons received the treatment.

The interactive videoconference will provide up-to-date information on this former radiation treatment. Toll-free telephone lines will be available for participants to ask questions about nasopharyngeal radium irradiation, possible health effects, and other related topics. Continuing Medical Education credits and a variety of other continuing education credits will be available.

Additional information is available by calling (404) 332-4565 and requesting document number 564014. To register, print the participant's name, address, daytime phone number, fax number, and the word "NASO" and fax to (800) 553-6323. Course materials will be sent immediately following registration.

#### Erratum: Vol. 45, No. 28

In the report "Biopsy-Confirmed Hypersensitivity Pneumonitis in Automobile Production Workers Exposed to Metalworking Fluids—Michigan, 1994–1995," reference 2 cited in the list on page 606 is incorrect. The correct citation should be: NIOSH. National Occupational Exposure Survey, 1981–1983. Cincinnati, Ohio: US Department of Health and Human Services, Public Health Service, CDC. (Unpublished data).

#### Erratum: Vol. 45, No. RR-7

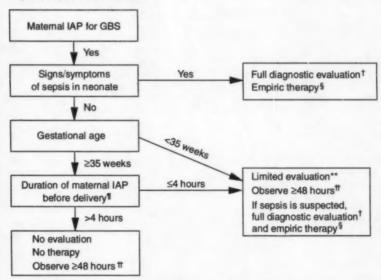
The MMWR Recommendations and Reports, "Prevention of Perinatal Group B Streptococcal Disease: A Public Health Perspective," contained two errors.

#### Page 17, Box 1: Item 3 should read:

 Remove the swabs from the transport medium and inoculate both swabs together into selective broth medium. Todd-Hewitt broth supplemented with either colistin (10 μg/mL) and nalidixic acid (15 μg/mL) or with gentamicin (8 μg/mL) and nalidixic acid (15 μg/mL) may be used; appropriate commercially available options include Lim or SBM broth.

Page 20: Figure 3 contained an arrow pointing in the incorrect direction. The corrected Figure 3 appears below.

FIGURE 3. Algorithm\* for management of a neonate born to a mother who received intrapartum antimicrobial prophylaxis (IAP) for prevention of early-onset group B streptococcal (GBS) disease



\*This algorithm is not an exclusive course of management. Variations that incorporate individual circumstances or institutional preferences may be appropriate.

\*Includes a complete blood count (CBC) and differential, blood culture, and chest radiograph if neonate has respiratory symptoms. Lumbar puncture is performed at the discretion of the physician.

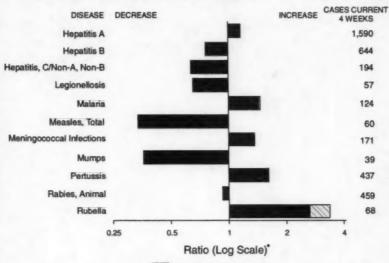
<sup>5</sup>Duration of therapy will vary depending on blood culture and cerebrospinal fluid (CSF) results and the clinical course of the infant. If laboratory results and clinical course are unremarkable, duration of therapy may be as short as 48–72 hours.

Duration of penicillin or ampicillin chemoprophylaxis.

\*\* CBC and differential and a blood culture.

<sup>††</sup>Does not allow early discharge.

FIGURE I. Selected notifiable disease reports, comparison of 4-week totals ending August 3, 1996, with historical data — United States



Beyond Historical Limits

\*Ratio of current 4-week total to mean of 15 4-week totals (from previous, comparable, and subsequent 4-week periods for the past 5 years). The point where the hatched area begins is based on the mean and two standard deviations of these 4-week totals.

TABLE I. Summary — cases of selected notifiable diseases, United States, cumulative, week ending August 3, 1996 (31st Week)

		Cum. 1996		Cum. 1996
Anthrax			HIV infection, pediatric*§	170
Brucellosis		52	Plague	
Cholera		2	Poliomyelitis, paralytic*	
Congenital rul	bella syndrome	1	Psittacosis	22
Cryptosporidi	osis*	1,028	Rabies, human	
Diphtheria		1	Rocky Mountain spotted fever (RMSF)	319
Encephalitis:	California*	13	Streptococcal toxic-shock syndrome*	10
	eastern equine*	1	Syphilis, congenital**	
	St. Louis*		Tetanus	15 84 12
	western equine*		Toxic-shock syndrome	84
Hansen Disea		60	Trichinosis	12
Hantavirus pu	Imonary syndrome**	60	Typhoid fever	191

-: no reported class:

Not notifiable in all states.

Not notifiable in all states.

\*\*Updated weekly from reports to the Division of Viral and Rickettsial Diseases, National Center for Infectious Diseases (NCID).

\*\*Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention (NCHSTP), last update July 30, 1996.

\*\*Updated update July 30, 1996.

\*\*Updated quarterly from reports to the Division of STD Prevention, NCHSTP: First quarter 1996 is not yet available.

TABLE II. Cases of selected notifiable diseases, United States, weeks ending August 3, 1996, and August 5, 1995 (31st Week)

				Esche coli O	157:H7				atitis		
	AID		Chlamydia	NETSS'	PHLIS*	Gono	rrhea		A,NB	Legion	ellosis
Reporting Area	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
UNITED STATES	39,982	42,161	177,227	1,118	379	157,465	230,423	2,066	2,343	434	708
NEW ENGLAND	1,589	2,166	10,330	157	21	4,293	4,435	66	79	23	14
Maine	29	75	533 397	14	5	29	44	3	11	1	
N.H. ∕t.	50 14	16	397	13	6	80 34	69	26	7	3	
Mass.	740	996	3,931	69	10	1,296	1,596	32	57	12	1
R.I. Conn.	113 643	144 876	1,200 4,269	7	1	300 2,554	298	5	4	7 N	
MID. ATLANTIC	11,159	10,850	22,244	102	26	16.828	26,266	183	259	91	11
Jpstate N.Y.	1,378	1,272	N	65	12	3,570	5,712	150	128	30	3
N.Y. City N.J.	6,277	5,643 2,544	9,512 2,469	33	5	4,931 2,597	10,561 2,226	1	106	7	1
Pa.	1,374	1,391	10,263	N	9	5,730	7,767	32	24	53	6
E.N. CENTRAL	3,225	3,280	24,866	275	125	25,009	45,986	279	188	126	20
Ohio Ind.	696 433	670 335	11,768	69 32	33 21	8,644 3,946	14,606	20	7	54 29	9
ina. III.	1,397	1,394	2,050	126	16	10,055	11,600	44	55	9	2
Mich.	528	667	U	46	36	U	10,626	208	125	27	2
Wis.	171	214	5,048	N	19	2,364	3,912		-	7	2
W.N. CENTRAL Minn.	935 170	963 218	13,960	248 95	86 38	6,913	11,659	79	40	24	4
lowa	63	53	2,309	64	31	604	798	40	7	5	1
Mo. N. Dak	469	421	7,407	36	:	4,832	6,711	21	13	6	1
S. Dak.	8	9	689	9 7	6	95	17		4	2	
Nebr.	65	75	886	13	2	159	690	3	9	7	1
Kans.	150	183	2,668	24	9	1,222	1,664	14	4	2	
S. ATLANTIC Del.	9,735 193	10,712	32,694 1,148	56	15	57,997 850	63,909 1,257	143	146	80	11
Md.	1,149	1,416	3,698	N	5	7,801	7,257	i	6	11	2
D.C.	638 647	639 880	N and	N	2	2,646	2,683			6	
Va. W. Va.	73	46	8,396	N N	2	5,568 290	6,389	8 7	9	12	1
N.C.	539	586		17	2	11,021	14,503	30	36	6	2
S.C. Ga.	500 1,421	569 1,459	7,137	5 16	3	6,474 12,366	7,488 11,807	16 U	14 15	4 2	-
Fla.	4,575	4,926	14,315	13		10,981	12,055	80	32	30	
E.S. CENTRAL	1,311	1,391	17,366	30	18	18,701	24,090	402	684	30	1
Ky.	212 497	179 561	3,990 7,487	12	3	2,457	2,719	17	21	3	
Tenn. Ala.	365	375	4,991	7	3	6,483 8,154	8,144 10,026	314	661	15	1
Miss.	237	276	U	A		1,607	3,201	67	Ū	10	
W.S. CENTRAL	3,970	3,694	10,896	33	6	11,283	32,059	281	161	4	
Ark. Ln.	170 923	166 602	3,987	5	2 2	2,230 4,451	2,973 7,205	123	100	î	
Olda.	165	173	4,476	5	*	2,774	3,170	69	29	3	
Tex.	2,712	2,753	2,433	13	2	1,828	18,711	86	28	-	
MOUNTAIN Mont.	1,198	1,328	9,258	81	28	4,442	5,429	378 12	280	23	1
Idaho	25	31	917	18	5	86	78	88	33		
Wyo.	3	8	350	-	2	16	32	119	120	3	
Colo. N. Mex.	335 114	454 111	ŭ	26 5	5	1,075 525	1,747	31 37	42 34	7	1
Ariz.	342	350	3,931	N	13	2,287	1,984	41	20	7	
Utah	117	87	863	12	-	105	134	41	10	2	
Nev. PACIFIC	240	273	1,031	10	3	294	805	9	11	2	
Wash.	6,859	7,777	35,613 5,653	136 29	54	11,999 1,242	16,590 1,513	255 36	506 126	33	
Oreg.	311	256	U	45	17	312	461	4	32		
Calif. Alaska	5,964	6,734 50		59	26	9,963 261	13,831	94	338	28	1
Hawaii	121	161		N N	6	261	369	119	9	1	
Guam	4		168	N		31	76	1	4	2	
P.R.	1,352	1,692	N	12	U	194	354	70	129	-	
V.I. Amer Samos	16	25	N	N	Ü		15	*		-	
C.N.M.I.	1		N		Ü	11	31	-	5		

N: Not notifiable

U: Unavailable -: no reported cases C.N.M.I.: Commonwealth of Northern Mariana Islands

"Updated monthly to the Division of HIV/AIDS Prevention, National Center for HIV, STD, and TB Prevention, last update July 30, 1996. 
National Electronic Telecommunications System for Surveillance.

\*Public Health Laboratory Information System.

TABLE II. (Cont'd.) Cases of selected notifiable diseases, United States, weeks ending August 3, 1996, and August 5, 1995 (31st Week)

	Lyr		Mali	aria	Mening Dise		Sypi (Primary &		Tubero	ulosis	Rabies,	Animal
Reporting Area	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995
INITED STATES	4,609	5,550	733	674	2,174	2,036	6,164	9,712	10,707	11,838	3,321	4,721
NEW ENGLAND	1,421	1,092	31	28	92	96	104	219	237	290	414	958
Maine N.H.	10	10	6	3	12	6	:	2	4	11	55	21
N.H. /e	9	16	1 2	1	3	16	1	1	8	9 2	102	106 121
Mass.	101	64	11	9	34	33	47	39	111	159	65	310
/t. Mass. R.I. Conn.	189	171	3	2	10	4	1	1	24	27	29	179
	1,103	825	8	12	30	31	55	176	89	82	122	221
MID. ATLANTIC	2,692	3,622	169	184	191 58	264 73	243	514 54	1,871	2,556 290	445 241	1,235
Jpstate N.Y. N.Y. City N.J. Pa.	1,728	255	83	92	29	36	71	217	1,035	1,473	241	/19
N.J.	143	995	28	42	51	65	73	110	413	426	82	234
	641	552	10	14	53	90	56	133	195	367	122	282
E.N. CENTRAL Ohio	35	227	82	94	292	292	832	1,683	1,160	1,131	39	42
Ind.	24	15 11	9	5 12	113 45	86	300 138	536 184	170 109	100	5	5
H.		13	35	53	76	78	278	666	661	599	7	6
II. Mich. Wis.		5	20	13	31	53	U	173	161	217	15	18
	U	183	9	11	27	35	116	124	59	47	11	8
W.N. CENTRAL Minn.	74	66	23	17	176	122	219	481	261	363	330	228
OMB	13 16	5 7	7 2	3 2	23 35	21	27 13	26 28	51 39	92	16 160	11 80
Mo.	18	34	7	6	75	46	157	409	114	133	15	23
Mo. N. Dak. S. Dak.		*		1	3	1			3	2	45	22
S. Dak.	i	4	2	3	8		6	9	14	13 17	76	62
Nebr. Kans.	26	16	5	1	18		16	9	27	62	15	27
	243	375	162	129	482		2,232	2,465	1,986	2,125	1,637	1,281
S. ATLANTIC Del. Md. D.C.	36	30	3	1	2	5	23	8	20	37	43	70
Md.	125	243	35	33	46	29	354	262	178	237	390	257
D.C.	21	30	7 21	11 29	35		97 265	73 380	81 149	63 146	342	10 250
W. Va.	8	17	2	1	11		1	8	37	49	67	75
N.C.	32	33	14	11	58		633	681	287	254	417	293
S.C.	3	9	8	14	111		243 381	371 455	203 390	194 389	55 183	86 171
Va. W. Va. N.C. S.C. Ga. Fla.	16	3	58	29	167		235	227	641	756	132	69
E.S. CENTRAL	39	33	17	11	119		1,507	1,924	807	815	123	165
Ky. Tenn.	8	8	2	1	20	35	81	113	149	179	31	14
Tenn.	15	16	8	4	15		570	492	249	275	42	62
Ala. Miss.	3 13	1 8	3 4	5	45 39		348 510	375 944	261 148	236 125	48	85
W.S. CENTRAL	54	69	14	17	242			1,902	1,367	1,466	41	493
Ark.	17	6		2	28			289	116		14	33
La.	1	2	2	2	45	37	334	643	59	138	13	22
Okia. Tex.	33	26 35	12	12	146		118 74	114 856	1,076		14 U	24 414
MOUNTAIN	5	6	31	39				147	350		81	89
Mont.			3	39				4	14		15	29
Idaho	2 2			1		7	2		5			
Wyo.	2	3	3		3			85	45		20	21
Colo. N. Mex.		1	14	17				5	52		3	3
Ariz.			4	6	33	45	56	21	146	168	16	26
Utah	1	2	4					4 28	34 50		. 2	7
Nev.		-	2									
PACIFIC Wash.	46	60	204					377 10	2,668		211	230
Oreg.	9	8	15	9	8			18	53			1
Calif.	32	48	169	123	300	5 253	294	348	2,344	2,358	203	218
Alaska	i		2 5	1				1	97		8	7
Hawsii	,		5					7				
Guarn P.R.				1		1 2		171	35 63		30	32
V.I.				. 2								
Amer. Samoa				. 1			i	i		23		
C.N.M.I.												

TABLE III. Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 3, 1996, and August 5, 1995 (31st Week)

	H. influ			Hepatitis (vir	all, by type			(Rubeola		
	inva	iive	A		B		Indi	genous	Img	orted?
Reporting Area	Cum. 1996*	Cum. 1995	Cum. 1996	Cum. 1995	Cum. 1996	Cum. 1995	1996	Cum. 1996	1996	Cum. 1996
UNITED STATES	741	726	15,743	16,475	5,468	5,927	36	327	1	23
NEW ENGLAND	18	29	189	157	106	139		8		3
Maine	:	3 7	12	17	8	15	-			*
V.H.	8	2	10	4	9	2		1		
Mass.	9	9	96	65	33	48		6		3
R.I.	1	3	9	20	7	8	*	-		
Conn.	-	5	58	44	47	60		1		
MID. ATLANTIC	110	98 24	945 249	1,033	773 220	850 221		15		5
Upstate N.Y. N.Y. City	33 20	25	363	497	375	274	-	6		3
N.J.	34	11	207	145	99	221				
Pa.	23	38	126	144	79	134	*	9	*	2
E.N. CENTRAL	114	130	1,296	2,005	556	684		6		3
Ohio	68	65 17	526 189	1,147 95	83 97	73 137	*	2		:
Ind.	27	30	238	405	117	179		2	-	i
Mich.	7	16	248	226	224	246		1		2
Nis.	5	2	95	132	35	49		1	-	*
W.N. CENTRAL	33	53	1,271	1,124	255	371		17		1
Minn.	20	28	70 233	113	31 58	32 29	*	14		1
lowa Mo.	5	16	607	57 804	129	263		2	-	
N. Dak.		-	28	17		4		*		
S. Dak.	1	1	37	31		2		*		
Nebr. Kans.	1	3	132 164	30 72	14	20	*	i	-	
S. ATLANTIC	174	146	707	670	892	791	3	6	1	5
S. ATLANTIC Del.	2	140	8	8	6	6	3	1		
Md.	41	51	122	121	187	159		2	*	1
D.C.	5	19	20	16	27	13				2
Va. W. Va.	6	19	94 12	113	88 14	65 32				2
N.C.	20	23	82	71	227	176	3	3	1	1
S.C.	4		31	26	49	33			-	2
Ga. Fia.	71 19	43	49 289	50 253	8 286	62 245		:	:	1
E.S. CENTRAL	22	6	879	1,011	475	554				
Ky.	4	1	17	32	35	50				
Tenn.	11		594	832	266	436			-	
Ala. Miss.	6	4	121 147	54 93	39 135	68	-		-	
				1,855	743	675	1	18		2
W.S. CENTRAL	31	39	3,297 306	1,855	49	32	1	18		2
La.	3	1	102	53	68	111				
Olda.	25	20	1,340	486	59	97	:		*	2
Tex.	3	13	1,549	1,072	567	435	1	18		2
MOUNTAIN Mont.	72	84	2,486	2,506	630	520 16	25	115		1
Idaho	1	2	144	219	67	56	-	1		
Wyo.	35	4	27	83	25	17			-	-
Colo.	7	10	245	307	72	77		6		1
N. Mex. Ariz.	9	12 21	268 995	533 686	211 157	194		8	-	
Utah	6	9	573	492	64	45	25	87		
Nev.	5	26	154	122	28	33		5		*
PACIFIC	167	141	4,673	6,114	1,038	1,343	7	142		3
Wash.	2	7	320	458	60	109		45	-	*
Oreg. Calif.	22 140	20 110	557 3,716	1,543	39 925	1,131	7	29	2	2
Alaska	140	110	3,716	27	6	9		63		-
Hawaii	2	4	50	109	8	12		1	-	1
Guam			2	3	-	4	U		U	
P.R.	1	2	56	52	216	358		7		
V.J. Arner, Samoa			-	6 5		12	Ü		Ú	
C.N.M.I.	10	11	1	21	5	10	U		U	

N: Not notifiable

U: Unevailable

-: no reported cases

°Cf 169 cases among children aged <5 years, serotype was reported for 36 and of those, 10 were type b. ¹For imported measles, cases include only those resulting from importation from other countries.

TABLE III. (Cont'd.) Cases of selected notifiable diseases preventable by vaccination, United States, weeks ending August 3, 1996, and August 5, 1995 (31st Week)

	Measles (Rub		+	Mump			Pertussi		Rubella			
Reporting Area	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	1996	Cum. 1996	Cum. 1995	
IITED STATES	350	253	16	392	548	108	2,126	1,977	1	183	92	
W ENGLAND	11	8			10	23	445	303	-	24	35	
W ENGLAND sine H.			*		4	2	18	19				
M.	1	2			1	-	40 13	23 39	:	2	1	
155.	9	2	-		2	21	371	211	-	20	7	
nn.	i	5			3	*	3	10	-	2	27	
D. ATLANTIC	20	7		57	80	12	157	151		7		
state N.Y.		1	-	18	19	12	86	71		4	12	
state N.Y. Y. City	9	1		13	9		21	27		1	3 7 2	
J.	11	5		24	13 39	-	5 45	11 42	-	2	2	
N. CENTRAL	9	13	2	72	95	8	210	215		3	3	
N. CENTRAL	2	1	2 2	30	29	8	101	52			3	
1.	3	i		5 18	7		19	18		:		
ich.	3	5		18	28 31		64 21	41 34	2	1 2	3	
is.	1	6		1		*	5	70	-	-	-	
N. CENTRAL	18	2	2	9	32	8	92	106	-	1		
inn. wa	15	-	1	3	2 8	4	59	27		1		
0	2	1	1	2	18	3	19	34			-	
Dak. Dak.	-		-	2	-		1	6	-			
ebr.		-	-		4		2 3	8 7		-		
ebr.	1	1		1		*	4	19	-	*		
ATLANTIC	11	11	7	64	85	29	281	167		89	8	
el.	3	i	3	19	27	14	10 99	9 21	-			
d. C.					-	140	33	4	-	1		
. Va.	2		1	9	16		26	10		2		
C.	4	-	3	14	16	13	49	76	-	75	1	
C.				5	7		21	15		1		
a. a.	1	2 8	:	15	6	2	13 61	13 19		10	6	
S. CENTRAL			2	18	7	2	60	92		2	1	
1.		-		10		-	26	11	-	4		
a. iss.			-	1	:	-	17	51	-	:	1	
iss.			2	3 14	3	1	10 7	30	N	2 N	N	
S. CENTRAL	20	20		16	38	1	57	152		2	7	
rk	-	2		-	5	-	3	26		-	-	
kla.		18	*	11	8	1	6	10	~	1		
IX.	20			5	25	1	40	99	1	1	7	
OUNTAIN	116	68		22	24	1	209	385	1	7	4	
OUNTAIN ont. aho	:				1		11	3	-			
vo.	1			:	2	1	74	82		2		
yo. olo.	7	26		2	*	-	43	56		2		
. Mex. riz.	8	31 10	N	N 1	N 2		34 11	61 143		i	3	
tah	87			2	11		11	17	1	1	1	
ev.	5	1	*	17	8		22	22		1		
ACIFIC /ash.	145	124	3	134	177	24	615	406	+	48	22	
lash. reg.	45	18		18	10	6	228 29	93 25		1		
alif.	31	103	3	97	151	18	345	250		43	18	
laska	63		-	2	12		2					
awaii	2	2		17	4		11	38		3	4	
uam R.	7	3	U	5	3 2	U	1	2	U	:	1	
I. mer. Samoa .N.M.I.	-		-		3		- 2					
			U			U			U			

### TABLE IV. Deaths in 121 U.S. cities,\* week ending August 3, 1996 (31st Week)

	A	II Cau	ses, By	Age (Y	bars)		PBI*		All Causes, By Age (Years)						PM'
Reporting Area	All Ages	>65	45-64	25-44	1-24	41	Total	Reporting Area	All Ages	>65		25-44	1-24	<1	Total
NEW ENGLAND Boston, Mass. Bridgeport, Conn. Cambridge, Mass. Fall River, Mass. Hartford, Conn. Lowell, Mass. Lynn, Mass. New Bedford, Mass. New Haven, Conn. Providence, R.I. Somerville, Mass. Springfield, Mass. Waterbury, Conn.	491 149 38 19 29 U 17 9 21 42 56 4 4 34	359 106 28 16 22 U 12 6 15 24 47 2 24 23	65 19 7 2 4 U 2 1 2 7 5 2 7 5 2 7 7 7 7 7 7 7 7 7 7 7 7 7	38 11 2 1 3 U 2 2 4 5 2	10 6 1	19 7  U 1	25 6 3  U 1  2 2	S. ATLANTIC Atlanta, Ga. Baltimore, Md. Charlotte, N.C. Jacksonville, Fla. Miami, Fla. Norfolk, Va. Richmond, Va. Savannah, Ga. St. Petersburg, Fla. Tampa, Fla. Washington, D.C. Walmington, Del.	1,783 174 159 100 134 103 48 50 56 69 139 236 15	775 96 91 55 91 60 30 35 37 51 92 128	282 43 35 24 27 24 17 11 12 9 32 48	142 23 22 12 10 12 1 2 2 5 9 39 5	49 7 7 6 3 6 2 1 1 1 1 14	34 5 4 3 3 1 	57 5 11 6 7 5 4 4 4 1 9 5
Worcester, Mass. MID. ATLANTIC Albany, N.Y. Allentown, Pa. Buffalo, N.Y. Camden, N.J. Elizabeth, N.J. Erie, Pa.5	2,280 43 16 98 46 15 32	34 1,507 28 10 83 25 10 27	4 445 7 4 11 12 5	2 233 5 2 3 5	47	3 48 2	4 95 5 1	E.S. CENTRAL Birmingham, Ala. Chattanooga, Tenn. Knoxville, Tenn. Lexington, Ky. Memphis, Tenn. Mobile, Ala. Montgomery, Ala. Nashville, Tenn.	696 116 62 64 68 166 87 25 110	475 76 43 34 49 111 63 20 79	134 19 10 21 16 33 16 1	52 8 6 7 1 13 7 1	23 7 2 1 1 7 3 2	13 5 1 1 1 2 1 2 1 2	36 3 2 9 4 11
Jersey City, N.J. New York City, N.Y. Newark, N.J. Paterson, N.J. Paterson, N.J. Paterson, N.J. Rochester, N.Y. Scranton, Pa. Syracuse, N.Y. Scranton, Pa. Utica, N.Y. Vonkars, N.Y.	56 1,133 60 29 400 58 15 128 21 27 80 14 U	31 761 248 15 248 38 9 88 15 21 54 8	14 4 23 5 3 17 1	10 122 12 2 46 3 1 10 13 5	1 23 3 10 2 4	3 15 1 3 12 1 1 3	1 31 8 2 2 3 3 7 3 2 1 4 1 1 1	W.S. CENTRAL Austin, Tex. Baton Rouge, La. Corpus Christi, Tex. Dallas, Tex. El Paso, Tex. Ft. Worth, Tex. Houston, Tex. Little Rock, Ark. New Orleans, La. San Antonio, Tex. Shreveport, La. Tulsa, Okla.	1,489 74 22 65 202 81 94 364 75 154 194 55	896 41 17 39 117 47 60 220 41 83 121 39 71	305 17 5 16 39 17 24 73 15 25 42 11	175 15 6 20 9 9 45 10 27 22 2	56 1 2 15 6 1 14 4 5 3 2 3	54 2 11 2 12 5 11 6 1 4	63 3 1 3 4 1 28 5 6 6
E.N. CENTRAL Akron, Ohio Canton, Ohio Chicago, III. Cincinnati, Ohio Ceveland, Ohio Columbus, Ohio Dayton, Ohio Detroit, Mich. Evensville, Ind.	2,097 50 33 426 115 138 176 103 207 44	1,367 39 29 243 79 78 115 70 115	428 4 3 93 22 32 41 25 53 6	154 2 45 6 12 10 5 24 2	74 2 1 20 5 3 6 2 10 2	73 3 24 3 13 4 1 5	76 1 24 3 1 11 5 3	MOUNTAIN Albuquerque, N.M. Colo. Springs, Colo Denver, Colo. Las Vegas, Nev. Ogden, Utah Phoenix, Ariz. Pueblo, Colo. Salt Lake City, Utal Tucson, Ariz.	103 219 29 156 23	602 60 28 63 151 22 93 16 63 104	10 12 25 52 5 29 3 14	74 8 2 13 12 1 15 1 12 10	29 5 1 3 1 12 1 5	19 1 2 2 1 1 . 7 5 1	48 2 2 9 11 1 6 2 6
Fort Wayne, Ind. Gary, Ind. Grand Rapids, Micl Indianapolis, Ind. Madissan, Wis. Milwaukee, Wis. Peoria, Ill. South Bend, Ind. Toledo, Ohio Youngstown, Ohio	49 19 19 52 105 38 43 42 106 67	31 11 47 139 37 70 28 38 31 82	12 53 7 23 3 3 9	5 15 15 5 2 1	1 2 1 5 1 4 3 - 1 4 1	77 11 33 11 11 13 3 1	4 5 2 2 3 2 2 5	PACIFIC Berkeley, Calif. Fresno, Calif. Glendele, Calif. Honolulu, Hawaii Long Beach, Calif. Los Angeles, Calif. Passdena, Calif. Portland, Oreg. Sacramento, Calif. San Diego, Calif.	1,581 11 71 11 74 81 264 26 134 169	1,053 8 48 6 51 51 100 19 101 117	3 13 3 16 13 62 4 16 39	129 7 2 3 7 29 3 12 5	40 3 3 6 8 2 4 5	41 1 4 5 3 4 4	18
W.N. CENTRAL Des Moines, Iowa Duluth, Minn. Kansas City, Kans. Kansas City, Mo. Lincoln, Nebr. Minneapolis, Minn Ornaha, Nebr. St. Louis, Mo. St. Paul, Minn.	745 65 33 16 126 31 185 78 114	25 142 58 75	7 10 8 8 9 2 8 18 5 4 2 24 8 15 9 15	1 12 3 7	25 5 1 5 1 3 2 5 2	177	48 7 3 1 1 1 13 5 13	San Francisco, Call San Jose, Calif. Santa Cruz, Celif. Santa Cruz, Celif. Seattle, Wash. Spokane, Wash. Tacoma, Wash. TOTAL.	f. 114 193 24 131 50 96	70 138 17 81 37 63	30 35 4 23 7	11 13 1 18 3 5	2 1 1 2 1 2 363	6 1 7 7 2 4 318	10

U: Unavailable -: no reported cases
"Mortality data in this table are voluntarily reported from 121 cities in the United States, most of which have populations of 100,000 or more. A death is reported by the place of its occurrence and by the week that the death certificate was filed. Fetal deaths are not included.
"Pneumonia and influenza.
"Because of changes in reporting methods in these 3 Pennsylvania cities, these numbers are partial counts for the current week. Complete counts will be available in 4 to 6 weeks.
"Total includes unknown ages.

#### Contributors to the Production of the MMWR (Weekly)

#### Weekly Notifiable Disease Morbidity Data and 121 Cities Mortality Data

Denise Koo, M.D., M.P.H. Deborah A. Adams

Timothy M. Copeland

Patsy A. Hall

Carol M. Knowles

Sarah H. Landis

Myra A. Montalbano

#### **Desktop Publishing and Graphics Support**

Jolene W. Altman

Morie M. Higgins

Peter M. Jenkins

The Morbidity and Mortality Weekly Report (MMWR) Series is prepared by the Centers for Disease Control and Prevention (CDC) and is available free of charge in electronic format and on a paid subscription basis for paper copy. To receive an electronic copy on Friday of each week, send an e-mail message to lists@list.cdc.gov. The body content should read subscribe mmwr-toc. Electronic copy also is available from CDC's World-Wide Web server at http://www.cdc.gov/ or from CDC's file transfer protocol server at ftp.cdc.gov. To subscribe for paper copy, contact Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402; telephone (202) 512-1800.

Data in the weekly MMWR are provisional, based on weekly reports to CDC by state health departments. The reporting week concludes at close of business on Friday; compiled data on a national basis are officially released to the public on the following Friday. Address inquiries about the MMWR Series, including material to be considered for publication, to: Editor, MMWR Series, Mailstop C-08, CDC, 1600 Clifton Rd., N.E., Atlanta, GA 30333; telephone (404) 332-4555.

All material in the MMWR Series is in the public domain and may be used and reprinted without permission; citation as to source, however, is appreciated.

Director, Centers for Disease Control and Prevention

David Satcher, M.D., Ph.D.

Deputy Director, Centers for Disease Control

and Prevention Claire V. Broome, M.D.

Director, Epidemiology Program Office Stephen B. Thacker, M.D., M.Sc.

Editor, MMWR Series Richard A. Goodman, M.D., M.P.H. Acting Editor, MMWR (weekly) Ronald L. Moolenaar, M.D.

Managing Editor, MMWR (weekly) Karen L. Foster, M.A.

Writers-Editors, MMWR (weekly)

David C. Johnson Darlene D. Rumph Person Caran R. Wilbanks Editorial Assistant, MMWR (weekly)

Teresa F. Rutledge

☆U.S. Government Printing Office: 1996-733-175/47019 Region IV

AUSU 9

ZORHO HKN ROFR BRUG 19 RIATU 040 IND

Lal HMCZO MHH 000004 00

TRO HAHOO

> F-V CZZ

MR 0

MUS

COOTIO WAZHO 10

UN

S

Penalty for Private Use

Official Atlanta, Georgia 30333 Centers for Disease Control Public Health Service and Prevention (CDC) Business

**HEALTH AND HUMAN SERVICES** 

DEPARTMENT OF

000

Redistribution using permit imprint is

POSTAGE & FEES PAID FIRST-CLASS MAIL Permit No. G-284 PHS/CDC

